

CLAIMS:

1. In a computer network allowing communication between  
5 a host computer and a plurality of remote user computers, a  
method for packaging 3D animated content data for distribution  
to the remote user computers over a network connection, the  
method comprising:

10 identifying a set of pre-load data for being delivered over  
the network connection before playback of the 3D animated  
content;

15 storing the pre-load data in a pre-load file;

identifying a set of streaming data for being streamed over  
the network connection during playback of the 3D animated  
15 content;

identifying a data rate available to the remote user  
computer for streaming the streaming data;

identifying a duration of a scene;

20 storing the streaming data for the scene in a stream file  
associated with the scene, the stream file being of a size  
calculated from the identified data rate and the duration of the  
scene; and

25 streaming the stream file over the network connection during  
playback of the scene, the stream file calculated to finish  
downloading by the remote user computer prior to the end of the  
playback of the scene.

2. The method of claim 1, wherein the streaming data is  
animation data.

30 3. The method of claim 1, wherein the streaming data in  
the stream file is packaged into a plurality of streamable  
blocks.

4. The method of claim 3 further comprising:

5 identifying a time in which each streamable block is required by the remote computer during playback of the scene; and

determining the position of each block in the stream file based on the identified time, the position calculated to allow the remote user computer to download the block prior to the time the block is required.

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5. The method of claim 1, wherein the pre-load file includes a header portion and a body portion, the header portion including a directory of files used for playing the 3D animated content, and the body portion including the pre-load data.

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6. The method of claim 5, wherein the header portion includes a type code and a location code, the type code for indicating a file type of each file listed in the directory, and the location code for indicating a file location of each file 20 listed in the directory.

7. The method of claim 1 further comprising pre-loading the pre-load file before playback of the 3D animated content.

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8. The method of claim 1, wherein the 3D animated content is a multipath movie with a plurality of plot alternatives, the method further including streaming additional stream files associated with each plot alternative capable of being selected by a user after the stream file associated with the scene is 30 loaded by the remote computer.

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9. In a computer network allowing communication between a host computer and a plurality of remote user computers, a system for packaging 3D animated content data for distribution

to the remote user computers over a network connection, the system comprising:

5 means for identifying a set of pre-load data for being delivered over the network connection before playback of the 3D animated content;

means for storing the pre-load data in a pre-load file;

10 means for identifying a set of streaming data for being streamed over the network connection during playback of the 3D animated content;

means for identifying a data rate available to the remote user computer for streaming the streaming data;

means for identifying a duration of a scene;

15 means for storing the streaming data for the scene in a stream file associated with the scene, the stream file being of a size calculated from the identified data rate and the duration of the scene; and

20 means for streaming the stream file over the network connection during playback of the scene, the stream file calculated to finish downloading by the remote user computer prior to the end of the playback of the scene.

10. The system of claim 9, wherein the streaming data is  
25 animation data.

11. The system of claim 9, wherein the means for storing the streaming data includes means for packaging the streaming data into a plurality of streamable blocks.

30 12. The system of claim 11 further comprising:

means for identifying a time in which each streamable block is required by the remote user computer during playback of the scene; and

5 means for determining the position of each block in the stream file based on the identified time, the position calculated to allow the remote user computer to download the block prior to the time the block is required.

10 13. The system of claim 9 wherein the 3D animated content is a multipath movie with a plurality of plot alternatives, the system further including means for streaming additional stream files associated with each plot alternative capable of being selected by a user after the stream file associated with the scene is loaded by the remote computer.

15 14. In a computer network allowing communication between a host computer and a plurality of remote user computers, a system for packaging 3D animated content data for distribution to the remote user computers, the system comprising:

20 a pre-load file storing a set of pre-load data for being delivered over the network connection before playback of the 3D animated content;

25 a stream file storing the streaming data for being streamed over the network connection during playback of the 3D animated content;

25 a mass storage device for storing the pre-load file and the stream file; and

30 a production module in communication with the mass storage device, the production module including logic for:

30 identifying the pre-load data for the 3D animated content and the streaming data for a scene of the 3D animated content; and

35 storing the identified pre-load data in the pre-load file and the streaming data for the scene in the stream file associated with the scene.

15. The system of claim 14, wherein the streaming data is  
animation data.

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16. The system claim 14, wherein the stream file includes  
a plurality of streamable blocks for storing the streaming data.

10 17. The system of claim 16, wherein the streamable blocks  
is allocated a position in the stream file based on a time in  
which each streamable block is required by the remote user  
computer during playback of the scene, the position calculated  
to allow the remote user computer to download the block prior to  
the time the block is required.

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18. The system of claim 14, wherein the pre-load file  
includes a header portion and a body portion, the header portion  
including a directory of files used for playing the 3D animated  
content, and the body portion including the pre-load data.

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19. The system of claim 18, wherein the header portion  
includes a type code and a location code, the type code for  
indicating a file type of each file listed in the directory, and  
the location code for indicating a file location of each file  
25 listed in the directory.

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20. The system of claim 14 further including an Internet  
connection for delivering the pre-load file and the stream file  
to the remote user computers.

21. The system of claim 20 further including a projector  
module for loading the pre-load file and streaming the stream  
file for playing the animated content.

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